MPM 1D

MULTIPYLING A POLYNOMIAL BY A MONOMIAL

Prerequisite Skills:

Simplify, by multiplying each pair of monomials:

1. $-3(4)$ 2. $5(-6n)$ 3. $2a(3b)$

4. $-8x(2x^2)$ 5. $4w^2(-3w^3)$ 6. $9n(2n)$

7. $2ab^2(-ab)$ 8. $x^2y^3(6x^4y)$ 9. $-4m^3n(-2m)$

DISTRIBUTIVE PROPERTY: $a(n + m) = an + am$

①   Simplify.

A) $3(2x - 4)$ B) $-4x(3x + 1)$

C) $-2(d^2 + 3d - 6)$ D) $m^2(3 - 4m - 2m^2)$

E) $6a(-2a + a^2)$ F) $-5n^2(3n - 2n^2 + 1)$

G) $-3p^2q(p - 2pq + 5)$ H) $5ab(-2a^3 - 4ab)$

I) $(4k - 5n)(-2kn^2)$ J) $(x^2 - 3x + 6)(2x^2)$

② Determine the missing factor and verify.

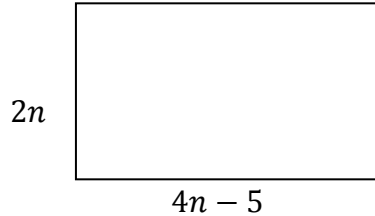[What expression should go in the square to make the algebra statement true?]

A) $\boxed{}(3a - 5) = 12a - 20$

B) $\boxed{}(n^2 + 3n - 8) = 2n^3 + 6n^2 - 16n$

C) $3c^3(\boxed{}) = -12c^6 + 6c^4 - 3c^3$

D) $8k^2 - 20k = 4\_\_\_(_____)$

E) $12xy^3 + 6xy^4 - 30xy^6 = 6\_\_\_(_____)$

③

$2n$

$4n - 5$

Write simplified algebraic expressions for the perimeter and the area of the rectangle:

A) $P = 2L + 2W$

B) $A = LW$